

CLINICAL DECISIONS

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Anticoagulation in Hospitalized Patients with Covid-19

This interactive feature addresses the approach to a clinical issue. A case vignette is followed by specific options, neither of which can be considered either correct or incorrect. In short essays, experts in the field then argue for each of the options. Readers can participate in forming community opinion by choosing one of the options and, if they like, providing their reasons.

CASE VIGNETTE

A Man with Covid-19

Jehan F. Chowdhury, D.O.

Mr. Jackson is a 78-year-old man with hypertension and hyperlipidemia who was brought to the emergency department 48 hours ago with a 2-day history of shortness of breath and fever (temperature up to 38.5°C). When he arrived at the emergency department, his temperature was 38.0°C, pulse 95 beats per minute, respiratory rate 22 breaths per minute, and oxygen saturation 98% while he was receiving supplemental oxygen through a nasal cannula at a rate of 2 liters per minute. Examination revealed rales at his lung bases. He was admitted to a medical unit. Laboratory testing on admission revealed a positive result for Covid-19 on a polymerase-chain-reaction assay and an elevated D-dimer level, at 980 ng per milliliter (upper limit of the normal range, 500 ng per milliliter).

Over the past 48 hours, his clinical status has worsened. Oxygen requirements have increased to 15 liters per minute by high-flow nasal cannula, and he has remained persistently febrile, with a temperature as high as 38.5°C. Inflammatory markers (erythrocyte sedimentation rate and C-reactive protein level) have been increasing, and the D-dimer level has increased to 1656 ng per milliliter.

Prophylactic anticoagulation was initiated on admission. Computed tomographic angiography

showed no evidence of deep venous thrombosis in the legs or pulmonary embolism. Now that the patient's condition has worsened, you must decide whether the prophylactic doses of anti-coagulants should be maintained or whether they should be replaced by an increased dose (i.e., intermediate dose) — and if so, what agent. In addition, you must decide whether anticoagulation, at either prophylactic or intermediate doses, should be continued after Mr. Jackson's discharge from the hospital.

TREATMENT OPTIONS

Which of the following approaches would you take for this patient? Base your choice on the published literature, your own experience, treatment guidelines, and other information sources.

1. Continue prophylactic anticoagulation during hospitalization and discontinue at hospital discharge.
2. Switch to intermediate-dose anticoagulation and continue anticoagulation after hospital discharge.

To aid in your decision making, each of these approaches is defended in a short essay by an expert in the field. Given your knowledge of the patient and the points made by the experts, which approach would you choose?

Taken from: <https://www.nejm.org/doi/pdf/10.1056/NEJMcide2028217?articleTools=true>

- 1- When Mr. Jackson was brought to the emergency department, his temperature was 38.0°C, pulse 98 beats per minute. _____
- 2- Laboratory testing on admission revealed a positive result for COVID 19. _____
- 3- After 48 hours, his clinical status got better. _____
- 4- Inflammatory markers decreased. _____
- 5- Computed tomographic angiography showed evidence of deep venous thrombosis in the legs and pulmonary embolism. _____
- 6- In the end, the patient got worse. _____